



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,654	06/28/2001	Manoel Tenorio	020431.0841	6772
53184 7590 04/29/2009 i2 TECHNOLOGIES US, INC. ONE i2 PLACE, 11701 LUNA ROAD DALLAS, TX 75234				
EXAMINER				
CHBOUKI, TAREK				
ART UNIT		PAPER NUMBER		
2165				
MAIL DATE		DELIVERY MODE		
04/29/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

09/895,654

**Applicant(s)**

TENORIO, MANOEL

**Examiner**

TAREK CHBOUKI

**Art Unit**

2165

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date: \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/16/2009 has been entered.

**Response to Amendment**

This Office action has been issued in response to amendment filed 02/16/2009. Claims 1-28 are cancelled and claims 29-56 are pending. Applicant's arguments have been carefully and respectfully considered.

**Response to Arguments**

Applicant arguments are fully considered and are moot in view of the new ground of rejection.

***Specification objection***

The specification is objected to because it lacks antecedent basis to the claimed computer-readable medium.

***Claim Rejections - 35 USC § 112***

Claim 53 is rejected under 35 USC 112, second paragraph because it is unclear if Applicant is invoking 35 USC 112 six paragraph. Applicant asserts that the claim 53 elements are a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, it is unclear whether the claim element is a means (or step) plus function limitation that invokes 35 U.S.C.

112, sixth paragraph, because the disclosure does not specify particular structure, material, or acts for performing the claimed function.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 45-53 refers to a “computer-readable medium”. Since the specification does not have support for the computer-readable medium, Examiner is relying on extrinsic evidence stating that the computer medium could be directed a software per se. wherein a series of modules are to be executed. The claims do not define structural and functional descriptive material used in interrelationship between the computer software and the hardware like a memory or processor.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 29-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livesay, Jeffery et al (hereinafter Livesay) US Publication No 20080126265 in view of Swamy, Shekhar N. et al (hereinafter Swamy) US Patent No. 6874141.

As per claim 29, Livesay discloses:

**An electronic commerce system, comprising:**

**a global content directory server**(Abstract: lines 1-2 and FIG. 4, components 401 and 406) **coupled with one or more seller databases over a network, the global content directory server providing a plurality of buyer computers access to the one or more seller databases,**

(Paragraphs [0088] and [0129], indicate global content directory (FIG. 4, components 401 and 406) providing the buyer access to the seller database).

**the global content directory server comprising:**

**a storage medium stored therein a schema translation tool comprising:**

**a storage medium stored therein a mapping module configured to:**

**receive information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products are categorized,**

(FIG. 5 and paragraph [0019], indicate the plurality of schema (XML data files) (buyer and seller) wherein the profile content grouping parameter is (taxonomy hierarchy of classes)).

**wherein the target schema comprises a different taxonomy than the taxonomy of the source schema,**

(Paragraph [0019], indicate the plurality of schema having different profile content (taxonomy data)).

**at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;**

(FIG. 5 and paragraph [0019], illustrate the association of the buyer and seller based on profile content (product ontology) parameter (class)).

**and a storage medium stored therein an ontology generation module configured to generate a product ontology for each of the target classes based on the product ontologies of the associated source classes.**

(FIG. 5 and paragraph [0019], illustrate the association of the buyer and seller based on a “best fit” match (ontology association) of profile attributes(class)).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**and associate one or more source classes of the source schema with one or more target classes of the target schema;**

(FIG. 11 and Column 2, lines 58-66).

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.

As per claim 30, Livesay and Swamy teach:

**The system of Claim 29, wherein the mapping module is further configured to:  
receive input from at least one of the plurality of buyer computers indicating one or more source classes to be associated with one or more target classes;**

(Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay).

**and associate the source classes with the target classes in response to the input from a user associated with at least one of the plurality of buyer computers.**

(Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay).

As per claim 31, Livesay and Swamy teach:

**The system of Claim 30, wherein the mapping module is further configured to: generate a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema with classes of the target schema;**

(Column 3, lines 1-7)(Swamy).

**and communicate the graphical representation to at least one of the plurality of buyer computers.**

(paragraph [0161])(Livesay) wherein the link is the graphical communication between buyer and seller).

As per claim 32, Livesay and Swamy teach:

**The system of Claim 29, wherein the source classes are leaf classes of the source schema (FIG. 8A, wherein the bottom-up approach is leaf classes)(Swamy).**

As per claim 33, Livesay and Swamy teach:

**The system of Claim 29, wherein the ontology generation module is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.**

(Paragraph [0136], wherein the determining profile link based on “best fit” profile content (product ontology) is determining association between product parameters between seller and buyer)(Livesay).

As per claim 34, Livesay and Swamy teach:

**The system of Claim 29, wherein the ontology generation module is further configured to generate a product ontology for a parent class of a plurality of target classes by determining the intersection of the product attributes included in the product ontologies of the target classes,**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters between seller and buyer)(Livesay).

**the product ontologies of the target classes having been generated by the ontology generation module (FIG. 4 and FIG. 5)(Livesay).**

As per claim 35, Livesay and Swamy teach:

**The system of Claim 29, wherein:**

**at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product;**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters (attributes) between seller and buyer)(Livesay).

**and the ontology generation module is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters (attributes) between seller and buyer)(Livesay).

As per claim 36, Livesay and Swamy teach:

**The system of Claim 29, wherein:**



**one or more pointers identifying the one or more seller databases are associated with at least one source class,**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**the one or more seller databases including product data associated with one or more products categorized in the source class;**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**and the mapping module is further configured to associate the one or more pointers of the source class with one or more target classes associated with the source class.**

(Column 3, lines 1-7)(Swamy).

As per claim 37, Livesay discloses:

**A computer-implemented method for translating between one or more schemas, comprising:  
at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;**

(Paragraph [0019], wherein the seller database (source schema) having goods in categories (attribute)).

**associating, by the server, one or more source classes of the source schema with one or more target classes of the target schema;**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**and generating, by the server, a product ontology for each of the target classes based on the product ontologies of the associated source classes.**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**receiving, by a server, information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized,**

(FIG. 11 and Column 2, lines 58-66).

**wherein the target schema comprises a different taxonomy then the taxonomy of the source schema,** (Column 1, lines 22-28 and FIG. 11 and Column 2, lines 58-66).

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.

As per claim 38, Livesay and Swamy teach:

**The method of Claim 37, further comprising:**

**receiving input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes;**

(Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay).

**and associating the source classes with the target classes in response to the input from at least one of the plurality of buyer computers.**

(FIG. 11 and Column 2, lines 58-66)(Swamy).

As per claim 39, Livesay and Swamy teach:

**The method of Claim 38, further comprising:**

**generating a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema with classes of the target schema;**

(Column 3, lines 1-7)(Swamy).

**and communicating the graphical representation to at least one of the plurality of buyer computers.**

(paragraph [0161])(Livesay) wherein the link is the graphical communication between buyer and seller).

As per claim 40, Livesay and Swamy teach:

**The method of Claim 37, wherein the source classes are leaf classes of the source schema.**

(FIG. 8A wherein the bottom-up approach is leaf classes)(Swamy).

As per claim 41, Livesay and Swamy teach:

**The method of Claim 37, further comprising generating a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.**

(Paragraph [0136], wherein the determining profile link based on "best fit" profile content (product ontology) is determining association between product parameters between seller and buyer)(Livesay).

As per claim 42, Livesay and Swamy teach:

**The method of Claim 37, further comprising generating a product ontology for a parent class of a plurality of target classes by determining the intersection of the product attributes included in the product ontologies of the target classes.**

(Paragraph [0136], wherein the determining profile link based on “best fit” profile content (product ontology) is determining association between product parameters between seller and buyer)(Livesay).

As per claim 43, Livesay and Swamy teach:

**The method of Claim 37, wherein:**

**at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product;**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters between seller and buyer)(Livesay).

**and the method further comprises generating a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters (attributes) between seller and buyer)(Livesay).

As per claim 44, Livesay and Swamy teach:

**The method of Claim 37, wherein:**

**one or more pointers identifying the one or more seller databases are associated with at least one source class,**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**the one or more seller databases including product data associated with one or more products categorized in the source class;**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**and the method further comprises associating the pointers of the source class with one or more target classes associated with the source class.**

(Column 3, lines 1-7)(Swamy).

As per claim 45, Livesay discloses:

**A computer-readable medium embodied with software for translating between schemas, the software when executed using one or more computers is configured to:**

**at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;**

(Paragraph [0019], wherein the seller database (source schema) having goods in categories (attribute)).

**associate one or more source classes of the source schema with one or more target classes of the target schema;**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**and generate a product ontology for each of the target classes based on the product ontologies of the associated source classes.**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**receive information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized,**

(FIG. 11 and Column 2, lines 58-66).

**wherein the target schema comprises a different taxonomy than the taxonomy of the source schema.**

(Column 1, lines 22-28 and FIG. 11 and Column 2, lines 58-66).

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.

As per claim 46, Livesay and Swamy teach:

**The computer-readable medium of Claim 45, wherein the software is further configured to: receive input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes;**

(Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay).

**and associate the source classes with the target classes in response to the input from at least one of the plurality of buyer computers.**

(Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay).

As per claim 47, Livesay and Swamy teach:

**The computer-readable medium of Claim 46, wherein the software is further configured to: generate a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema with classes of the target schema;**

(Column 3, lines 1-7)(Swamy).

**and communicate the graphical representation to at least one of the plurality of buyer computers.**

(paragraph [0161])(Livesay) wherein the link is the graphical communication between buyer and seller).

As per claim 48, Livesay and Swamy teach:

**The computer-readable medium of Claim 45, wherein the source classes are leaf classes of the source schema. (FIG. 8A wherein the bottom-up approach is leaf classes)(Swamy).**

As per claim 49, Livesay and Swamy teach:

**The computer-readable medium of Claim 45, wherein the software is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.**

(Paragraph [0136], wherein the determining profile link based on “best fit” profile content (product ontology) is determining association between product parameters between seller and buyer)(Livesay).

As per claim 50, Livesay and Swamy teach:

**The computer-readable medium of Claim 45, wherein the software is further configured to generate a product ontology for a parent class of a plurality of target classes by determining the intersection of the product attributes included in the product ontologies of the target classes.**

(Paragraph [0136], wherein the determining profile link based on “best fit” profile content (product ontology) is determining association between product parameters between seller and buyer)(Livesay).

As per claim 51, Livesay and Swamy teach:

**The computer-readable medium of Claim 45, wherein:**

**at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product;**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters between seller and buyer)(Livesay).

**and the software is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.**

(Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters (attributes) between seller and buyer)(Livesay).

As per claim 52, Livesay and Swamy teach:

**The computer-readable medium of Claim 45, wherein:**

**one or more pointers identifying one or more seller databases are associated with at least one source class,**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**the seller databases including product data associated with one or more products categorized in the source class;**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).



**And the software is further configured to associate the pointers of the source class with one or more target classes associated with the source class.**

(Column 3, lines 1-7)(Swamy).

As per claim 53, Livesay discloses:

**A computer-implemented system for translating between schemas, comprising:**

**a global content directory server coupled with one or more seller databases over a network,**

(Abstract: lines 1-2 and FIG. 4, components 401 and 406)

**the global content directory server providing a plurality of buyer computers access to the one or more seller databases** (Paragraphs [0088] and [0129], indicate global content directory (FIG. 4, components 401 and 406) providing the buyer access to the seller database), **the global content directory server comprising:**

**a storage medium stored therein a schema translation tool comprising:**

**a storage medium stored therein a mapping module comprising:**

**at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;**

(Paragraph [0019], wherein the seller database (source schema) having goods in categories (attribute)).

**and means for associating one or more source classes of the source schema with one or more target classes of the target schema;**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**and a storage medium stored therein an ontology generation module comprising:**

**means for generating a product ontology for each of the target classes based on the product ontologies of the associated source classes.**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**means for receiving information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized,**

(FIG. 11 and Column 2, lines 58-66).

**wherein the target schema comprises a different taxonomy then the taxonomy of the source schema.**

(Column 1, lines 22-28 and FIG. 11 and Column 2, lines 58-66).

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.

As per claim 54, Livesay discloses:

**A electronic commerce system, comprising:**

**a global content directory server coupled with one or more seller databases over a network,**

(Abstract: lines 1-2 and FIG. 4, components 401 and 406)

**the global content directory server providing a plurality of buyer computers access to the one or more seller databases** (Paragraphs [0088] and [0129], indicate global content directory (FIG. 4,

components 401 and 406) providing the buyer access to the seller database),, **the global content directory server comprising:**

**a storage medium stored therein a schema translation tool comprising:**

**a storage medium stored therein a mapping module configured to:**

**at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes,**

(Paragraph [0019], wherein the seller database (source schema) having goods in categories (attribute)).

**at least the source schema further comprising one or more pointers identifying one or more seller databases and associated with one or more classes,**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**the one or more seller databases including product data associated with one or more products categorized in the classes;**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**communicate the graphical representation to at least one of the plurality of buyer computers;**

(paragraph [0161])(Livesay) wherein the link is the graphical communication between buyer and seller).

**receive input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema to be associated with one or more target classes of the target schema;**

(paragraph [0161])(Livesay) wherein the link is the graphical communication between buyer and seller).

**associate one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers;**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**and associate the pointers of the source classes with one or more target classes associated with the source class;**

(paragraph [0161])wherein the link is the pointer between buyer and seller).

**and a storage medium stored therein an ontology generation module configured to generate a product ontology for each of the target classes based on the intersection of the product attributes included in the product ontologies of the associated source classes.**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**generate a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema with classes of the target schema;**

(Paragraph [0019] and [0155], wherein the link is the graphical presentation).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the graphical mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**receive information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized,**

(FIG. 11 and Column 2, lines 58-66).

**wherein the target schema comprises a different taxonomy then the taxonomy of the source schema.**

(Column 1, lines 22-28 and FIG. 11 and Column 2, lines 58-66).

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.

As per claim 55, Livesay discloses:

**A method for translating between schemas, comprising:**

**at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes,**

(Paragraph [0019], wherein the seller database (source schema) having goods in categories (attribute)).

**at least the source schema further comprising one or more pointers identifying one or more seller databases and associated with one or more classes,**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**the one or more seller databases including product data associated with one or more products categorized in the classes;**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**generating, by the server, a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema with classes of the target schema;**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**communicating, by the server, the graphical representation to at least one of the plurality of buyer computers;**

(paragraph [0161])wherein the link is the graphical communication between buyer and seller).

**receiving, by the server, input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema to be associated with one or more target classes of the target schema;**

(Paragraph [0155], wherein the input parameter links buyer to seller).

**associating, by the server, one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers;**

(Paragraph [0155], wherein the input parameter links buyer to seller).

**associating, by the server, the pointers of the source classes with one or more target classes associated with the source class;**

(paragraph [0161])wherein the link is the pointer between buyer and seller).

**and generating, by the server, a product ontology for each of the target classes based on the intersection of the product attributes included in the product ontologies of the associated source classes.**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the graphical mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**receiving, by a server, information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized (FIG. 11 and Column 2, lines 58-66).**

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.

As per claim 56, Livesay discloses:

**A computer-readable medium embodied with software for translating between schemas, the software when executed using one or more computers is configured to:**

**at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes,**

(Paragraph [0019], wherein the seller database (source schema) having goods in categories (attribute)).

**at least the source schema further comprising one or more pointers identifying one or more seller databases and associated with one or more classes,**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**the one or more seller databases including product data associated with one or more products categorized in the classes;**

(Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

**communicate the graphical representation to at least one of the plurality of buyer computers;**

(paragraph [0161])wherein the link is the graphical communication between buyer and seller).

**receive input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema to be associated with one or more target classes of the target schema;**

(Paragraph [0155], wherein the input parameter links buyer to seller).

**associate one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers;**

(Paragraph [0155], wherein the input parameter links buyer to seller).

**associate the pointers of the source classes with one or more target classes associated with the source class;**

(Paragraph [0155], wherein the input parameter links buyer to seller).

**and generate a product ontology for each of the target classes based on the intersection of the product attributes included in the product ontologies of the associated source classes.**

(Paragraph [0019], wherein the profile link is the association of seller's (source schema) with the buyer (data, target schema)).

**generate a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema with classes of the target schema;**

(Paragraph [0019] and [0155], wherein the link is the graphical presentation).

Livesay discloses receiving data and translating (mapping) to standard XML or EDI (Paragraph [0079]) but does not go into detail regarding the graphical mapping tool product, however in an analogous art of data mapping/translating, Swamy teaches:

**receive information regarding a source schema and a target schema, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, (FIG. 11 and Column 2, lines 58-66).**

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Swamy by incorporating the teaching of Swamy into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the mapping tool of Swamy into the system of Livesay for the purpose of providing a hierarchical data mapping.



**Conclusion**

For the prior art made of record and not relied upon is considered pertinent to applicant's disclosure, please refer to the Notice of Reference form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarek Chbouki whose telephone number is 571-2703154. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chace Christian can be reached on 5712724190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tarek Chbouki/

Examiner, Art Unit 2165

04/20/2009

/Christian P. Chace/

Supervisory Patent Examiner, Art Unit 2165